

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : G06F		A2	(11) International Publication Number: WO 00/48054
			(43) International Publication Date: 17 August 2000 (17.08.00)
(21) International Application Number: PCT/US00/03125			(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
(22) International Filing Date: 7 February 2000 (07.02.00)			
(30) Priority Data: 60/119,378 9 February 1999 (09.02.99) US 60/125,658 22 March 1999 (22.03.99) US 09/396,287 15 September 1999 (15.09.99) US			
(71) Applicant (for all designated States except US): ELITE LOGISTICS SERVICES, INC. [US/US]; 1201 N Ave. H., Freeport, TX 77541 (US).			
(72) Inventors; and (75) Inventors/Applicants (for US only): SMITH, Joseph, D. [US/US]; 2511 Deep Sea Drive, Freeport, TX 77541-9102 (US). HIGGS, Austin, L. [US/US]; 110 Acacia Street, Freeport, TX 77566-5330 (US). NGUYEN, Thien, K. [US/US]; 2514 Deep Sea Drive, Freeport, TX 77541-9102 (US).			
(74) Agent: NASH, Kenneth, L.; P.O. Box 680106, Houston, TX 77268-0106 (US).			

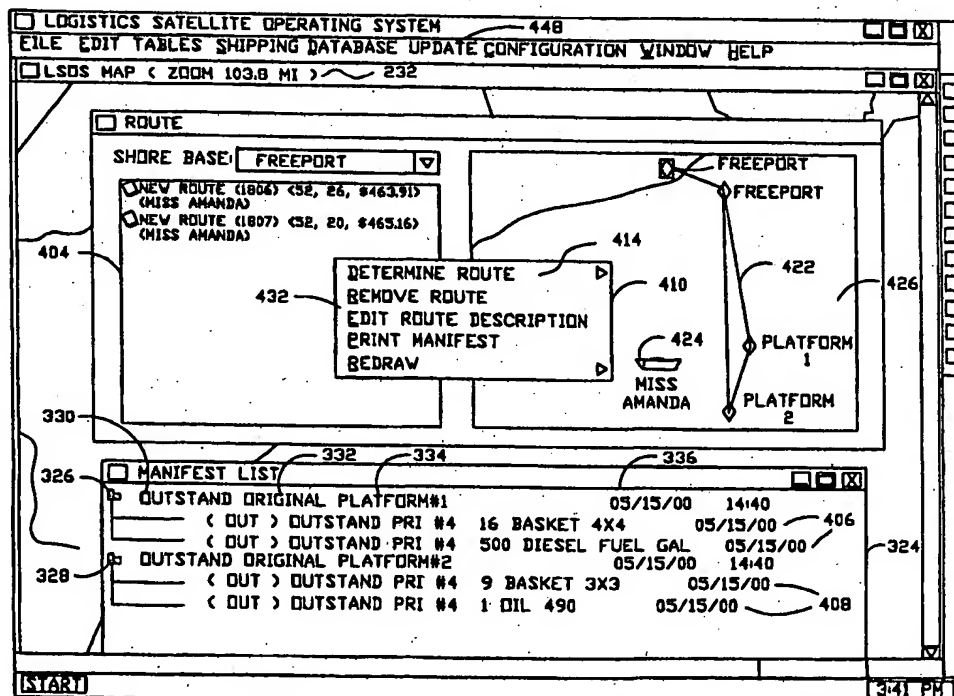
Published

Without international search report and to be republished upon receipt of that report.

(54) Title: LOGISTICS SYSTEM AND METHOD

(57) Abstract

A logistics method is disclosed that provides logistics computer programming for controlling a plurality of transports (252) to supply a plurality of delivery locations (248) from one or more bases (226, 254). Each of the bases (226, 254) and delivery locations (248) are in communication with a central database (202), preferably an Internet server database, that contains updated logistics information. The central database (202) is preferably automatically updated at selectable intervals as to transport location, destination, fuel level, speed, and heading (286). Manifests (326) may be originated at the respective delivery location (248) or at an associated base (226, 254) and are stored in the central database (202). Given information about each transport such as load capacity, fuel level, location intelligence (284), and the like that is stored in the central database (202) and information about the materials (350), manifest status (348), and other factors, potential least cost delivery routes (422) using capable transports (424) can be automatically produced for selection by an operator (432). The computer programming associates a status designation (348) with each manifest such as outstanding, staged, printed, loaded, unloaded, and cancelled (354).



SUMMARY OF THE INVENTION

The present invention provides a means for keeping up with the numerous details, variations, problem handling, and communications involved in a logistics system.

For this purpose, a logistics method is provided for using a plurality of transports
5 operating to supply a plurality of delivery locations from a plurality of bases by means of logistics computer programming. The method comprises steps such as providing the logistics computer programming for respective computers at the plurality of bases and at the plurality of delivery locations. A central database is provided for the respective computers and each of the respective computers operable for communication with the
10 central database. The logistics computer programming is operable for providing updated logistics information to the central database from the respective computers. Preferably, automatic communication at selected intervals with the plurality of transports provides transport location intelligence. The transport location intelligence is preferably automatically stored in the central database. As well, transport information relating to
15 each of the plurality of transports is stored in the central database. A list of materials is stored in the central database. This list is used to produce a manifest of manifested materials selected from the list for delivery to one or more of the plurality of delivery locations by one of the plurality of transports.

Preferably, the automatic communication provides transport latitude and longitude
20 information and may also include heading and speed. The automatically obtained transport location intelligence may also include providing the fuel level for a respective transport.

The transport information includes factors about each transport such as cost/mile, daily cost, and storage space available. The logistics computer programming is operable

for automatically selecting a transport and determining a least cost delivery route based on the cost/mile, the storage space available, and the manifest using a transport with the necessary capability. In one mode, an operator may manually select a transport listed in the logistics computer programming and automatically determine a most economical route for delivering the manifested materials using the selected transport. The programming automatically prices out associated deliveries of the manifested materials. A plurality of possible delivery routes are preferably provided for selection by the operator.

The manifest may be originated at one of the plurality of bases or one of the plurality of delivery locations. The central database is updated to include the manifest. The logistics computer programming associates a status with the manifest wherein the status preferably comprises a relationship to a shipment of materials in the manifest such that the shipment is outstanding, staged, printed, loaded, unloaded, or canceled.

The logistics computer programming preferably displays a main screen with a map that includes at least one base from the plurality of bases and selectable delivery locations assigned to the base from the plurality of delivery locations. As well, the programming associates each material with vendor information and stores the vendor information in the central database. Preferably the logistics computer programming stores interconnected tables at the central database related to the materials, the vendors, the plurality of delivery locations, and an operating company. The list of materials may associate a hazardous or a nonhazardous designation for each material. Association with each hazardous material may include a hazardous I.D., a DOT name, and an emergency number. As well, each material on the list of materials may be associated with a type of storage required. In fact, the computer logistics programming automatically selects the

storage place on the transport although the selection can be changed.

The programming operates using a plurality of lists such as transport information relating to each of the plurality of transports in the central database with the transport information including factors such as daily cost and cost/mile information. A list of stored materials is used. As well, location intelligence in the central database related to each of the plurality of delivery locations is used along with a list of manifests in the central database relating to deliveries for the plurality of delivery locations.

In one embodiment, a monitoring system for use with a plurality of containers having cargo therein on behalf of a plurality of clients is provided that comprises a computer network server operable for communicating with a plurality of client computers. A database is operable for storing information relating to each of the containers and the cargo therein. A wireless communication device is associated with each of the plurality of containers for providing location intelligence for each of the containers. The location intelligence is stored in the database. The plurality of clients may access information from the database to determine location intelligence and a respective listing of cargo for each of the plurality of clients in the containers. Preferably, the computer network server is operable for communicating with the plurality of client computers over an Internet connection. The plurality of client computers is operable for producing a map showing thereon a geographic picture of one or more containers. Each of the plurality of client computers is operable for selectively communicating with one or more of the plurality of containers with which the client is associated. In one embodiment, the container may include receiving apparatus for producing a signal in response to a communication from a respective client for effecting a purpose such as remote control or the like.

Therefore, it is an object of the present invention to provide an improved logistics system.

Another object of the present invention is to provide a device for controlling costs associated with logistics.

5 Yet another object of the present invention is to provide a system that is operable at a substantially reduced cost.

Yet another preferred object of the present invention is to provide a system that is accessible as necessary even from remote portions of the world.

The above objects, features, and advantages are not to be construed as limiting the
10 invention in any way but are provided merely as an aid in understanding the ramifications of the invention with respect to presently preferred embodiments of the invention. Moreover, these and yet other diverse objects, features, and advantages of the present invention will become apparent from the drawings, the descriptions given herein, and the appended claims.

